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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/792,176

DATE: 09/16/2004

TIME: 11:41:41

Input Set : N:\Cr3\RULE60\10792176.raw

Output Set: N:\CRF4\09162004\J792176.raw

SEQUENCE LISTING

3 (1) GENERAL INFORMATION:

5 (i) APPLICANT: Chait, Brian T.

6 Beavis, Ronald

7 Wang, Rong

8 Kent, Stephen B.H.

10 (ii) TITLE OF INVENTION: Method and Product for the Sequence

11 Determination of Peptides Using a Mass Spectrometer

13 (iii) NUMBER OF SEQUENCES: 24

15 (iv) CORRESPONDENCE ADDRESS:

16 (A) ADDRESSEE: Townsend and Townsend and Crew LLP

17 (B) STREET: Two Embarcadero Center, Eighth Floor

18 (C) CITY: San Francisco

19 (D) STATE: California

20 (E) COUNTRY: USA

21 (F) ZIP: 94111-3834

23 (v) COMPUTER READABLE FORM:

24 (A) MEDIUM TYPE: Floppy disk

25 (B) COMPUTER: IBM PC compatible

26 (C) OPERATING SYSTEM: PC-DOS/MS-DOS

27 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

29 (vi) CURRENT APPLICATION DATA:

C--> 30 (A) APPLICATION NUMBER: US/10/792,176

C--> 31 (B) FILING DATE: 02-Mar-2004

W--> 36 (C) CLASSIFICATION: 436

C--> 41 (vii) PRIOR APPLICATION DATA:

34 (A) APPLICATION NUMBER: US/08/341,555

35 (B) FILING DATE: 24-JUNE-1996

38 (A) APPLICATION NUMBER: WO PCT/US93/05070

39 (B) FILING DATE: 27-MAY-1993

42 (A) APPLICATION NUMBER: US 07/891,177

43 (B) FILING DATE: 29-MAY-1992

C--> 45 (viii) ATTORNEY/AGENT INFORMATION:

46 (A) NAME: Storella, John R.

47 (B) REGISTRATION NUMBER: 32,944

48 (C) REFERENCE/DOCKET NUMBER: 016866-000200US

C--> 50 (ix) TELECOMMUNICATION INFORMATION:

51 (A) TELEPHONE: (415) 576-0200

52 (B) TELEFAX: (415) 576-0300

55 (2) INFORMATION FOR SEQ ID NO: 1:

57 (i) SEQUENCE CHARACTERISTICS:

58 (A) LENGTH: 20 amino acids

59 (B) TYPE: amino acid

ENTERED

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60         (C) STRANDEDNESS:
61         (D) TOPOLOGY: linear
63         (ii) MOLECULE TYPE: peptide
66         (ix) FEATURE:
67             (A) NAME/KEY: Modified-site
68             (B) LOCATION: 1
69             (D) OTHER INFORMATION: /product= "OTHER"
70 /note= "Xaa = alpha-amino-n-butyric acid"
73         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
W--> 75     Xaa Gly His Lys Ala Ile Gly Thr Val Leu Val Gly Pro Thr Pro Val
76         1             5             10             15
78         Asn Ile Ile Gly
79             20
82 (2) INFORMATION FOR SEQ ID NO: 2:
84     (i) SEQUENCE CHARACTERISTICS:
85         (A) LENGTH: 18 amino acids
86         (B) TYPE: amino acid
87         (C) STRANDEDNESS:
88         (D) TOPOLOGY: linear
90     (ii) MOLECULE TYPE: peptide
93     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
95     Gly Ile Gly Gly Phe Ile Lys Val Arg Gln Tyr Asp Gln Ile Pro Val
96         1             5             10             15
98     Glu Ile
101 (2) INFORMATION FOR SEQ ID NO: 3:
103     (i) SEQUENCE CHARACTERISTICS:
104         (A) LENGTH: 16 amino acids
105         (B) TYPE: amino acid
106         (C) STRANDEDNESS:
107         (D) TOPOLOGY: linear
109     (ii) MOLECULE TYPE: peptide
112     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
114     Leu Glu Glu Met Asn Leu Pro Gly Lys Trp Lys Pro Lys Met Ile Gly
115         1             5             10             15
118 (2) INFORMATION FOR SEQ ID NO: 4:
120     (i) SEQUENCE CHARACTERISTICS:
121         (A) LENGTH: 16 amino acids
122         (B) TYPE: amino acid
123         (C) STRANDEDNESS:
124         (D) TOPOLOGY: linear
126     (ii) MOLECULE TYPE: peptide
129     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
131     Leu Arg Arg Ala Phe Gly Leu Ile Gly Asn Asn Pro Leu Met Ala Arg
132         1             5             10             15
135 (2) INFORMATION FOR SEQ ID NO: 5:
137     (i) SEQUENCE CHARACTERISTICS:
138         (A) LENGTH: 11 amino acids
139         (B) TYPE: amino acid
140         (C) STRANDEDNESS:

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141          (D) TOPOLOGY: linear
143      (ii) MOLECULE TYPE: peptide
146      (ix) FEATURE:
147          (A) NAME/KEY: Modified-site
148          (B) LOCATION: 5
149          (D) OTHER INFORMATION: /product= "OTHER"
150 /note= "Xaa = phosphorylated serine"
153      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
W--> 155      Leu Arg Arg Ala Xaa Gly Leu Ile Tyr Asn Asn
156          1          5          10
159 (2) INFORMATION FOR SEQ ID NO: 6:
161      (i) SEQUENCE CHARACTERISTICS:
162          (A) LENGTH: 11 amino acids
163          (B) TYPE: amino acid
164          (C) STRANDEDNESS:
165          (D) TOPOLOGY: linear
167      (ii) MOLECULE TYPE: peptide
170      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
172      Leu Arg Arg Ala Ser Gly Leu Ile Tyr Asn Asn
173          1          5          10
176 (2) INFORMATION FOR SEQ ID NO: 7:
178      (i) SEQUENCE CHARACTERISTICS:
179          (A) LENGTH: 16 amino acids
180          (B) TYPE: amino acid
181          (C) STRANDEDNESS:
182          (D) TOPOLOGY: linear
184      (ii) MOLECULE TYPE: peptide
187      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
189      Leu Arg Arg Ala Ser Gly Leu Ile Tyr Asn Asn Pro Leu Met Ala Arg
190          1          5          10          15
193 (2) INFORMATION FOR SEQ ID NO: 8:
195      (i) SEQUENCE CHARACTERISTICS:
196          (A) LENGTH: 5 amino acids
197          (B) TYPE: amino acid
198          (C) STRANDEDNESS:
199          (D) TOPOLOGY: linear
201      (ii) MOLECULE TYPE: peptide
204      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
206      Gly Leu Val Phe Ala
207          1          5
210 (2) INFORMATION FOR SEQ ID NO: 9:
212      (i) SEQUENCE CHARACTERISTICS:
213          (A) LENGTH: 4 amino acids
214          (B) TYPE: amino acid
215          (C) STRANDEDNESS:
216          (D) TOPOLOGY: linear
218      (ii) MOLECULE TYPE: peptide
221      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
223      Leu Val Phe Ala

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224      1
227 (2) INFORMATION FOR SEQ ID NO: 10:
229      (i) SEQUENCE CHARACTERISTICS:
230          (A) LENGTH: 16 amino acids
231          (B) TYPE: amino acid
232          (C) STRANDEDNESS:
233          (D) TOPOLOGY: linear
235      (ii) MOLECULE TYPE: peptide
238      (ix) FEATURE:
239          (A) NAME/KEY: Modified-site
240          (B) LOCATION: 16
241          (D) OTHER INFORMATION: /product= "OTHER"
242 /note= "Xaa = argininamide"
245      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
W--> 247      Leu Arg Arg Ala Ser Gly Leu Ile Tyr Asn Asn Thr Leu Met Ala Xaa
248          1             5             10             15
251 (2) INFORMATION FOR SEQ ID NO: 11:
253      (i) SEQUENCE CHARACTERISTICS:
254          (A) LENGTH: 7 amino acids
255          (B) TYPE: amino acid
256          (C) STRANDEDNESS:
257          (D) TOPOLOGY: linear
259      (ii) MOLECULE TYPE: peptide
262      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
264      Ala Val Gly Leu Phe Ala Gly
265          1             5
268 (2) INFORMATION FOR SEQ ID NO: 12:
270      (i) SEQUENCE CHARACTERISTICS:
271          (A) LENGTH: 4 amino acids
272          (B) TYPE: amino acid
273          (C) STRANDEDNESS:
274          (D) TOPOLOGY: linear
276      (ii) MOLECULE TYPE: peptide
279      (ix) FEATURE:
280          (A) NAME/KEY: Modified-site
281          (B) LOCATION: 4
282          (D) OTHER INFORMATION: /product= "OTHER"
283 /note= "Xaa = glycine bound to a resin such as
284 methylbenzhydrylamine"
287      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
W--> 289      Leu Phe Ala Xaa
290          1
293 (2) INFORMATION FOR SEQ ID NO: 13:
295      (i) SEQUENCE CHARACTERISTICS:
296          (A) LENGTH: 5 amino acids
297          (B) TYPE: amino acid
298          (C) STRANDEDNESS:
299          (D) TOPOLOGY: linear
301      (ii) MOLECULE TYPE: peptide

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304      (ix) FEATURE:
305          (A) NAME/KEY: Modified-site
306          (B) LOCATION: 5
307          (D) OTHER INFORMATION: /product= "OTHER"
308 /note= "Xaa = glycine bound to a resin such as
309 methylbenzhydrylamine"
312      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
W--> 314      Gly Leu Phe Ala Xaa
315          1             5
318      (2) INFORMATION FOR SEQ ID NO: 14:
320          (i) SEQUENCE CHARACTERISTICS:
321              (A) LENGTH: 6 amino acids
322              (B) TYPE: amino acid
323              (C) STRANDEDNESS:
324              (D) TOPOLOGY: linear
326          (ii) MOLECULE TYPE: peptide
329          (ix) FEATURE:
330              (A) NAME/KEY: Modified-site
331              (B) LOCATION: 6
332              (D) OTHER INFORMATION: /product= "OTHER"
333 /note= "Xaa = glycine bound to a resin such as
334 methylbenzhydrylamine"
337      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
W--> 339      Val Gly Leu Phe Ala Xaa
340          1             5
343      (2) INFORMATION FOR SEQ ID NO: 15:
345          (i) SEQUENCE CHARACTERISTICS:
346              (A) LENGTH: 7 amino acids
347              (B) TYPE: amino acid
348              (C) STRANDEDNESS:
349              (D) TOPOLOGY: linear
351          (ii) MOLECULE TYPE: peptide
354          (ix) FEATURE:
355              (A) NAME/KEY: Modified-site
356              (B) LOCATION: 7
357              (D) OTHER INFORMATION: /product= "OTHER"
358 /note= "Xaa = glycine bound to a resin such as
359 methylbenzhydrylamine"
362      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
W--> 364      Ala Val Gly Leu Phe Ala Xaa
365          1             5
368      (2) INFORMATION FOR SEQ ID NO: 16:
370          (i) SEQUENCE CHARACTERISTICS:
371              (A) LENGTH: 5 amino acids
372              (B) TYPE: amino acid
373              (C) STRANDEDNESS:
374              (D) TOPOLOGY: linear
376          (ii) MOLECULE TYPE: peptide
379          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/792,176

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Input Set : N:\Crf3\RULE60\10792176.raw
Output Set: N:\CRF4\09162004\J792176.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos.1
Seq#:5; Xaa Pos.5
Seq#:10; Xaa Pos.16
Seq#:12; Xaa Pos.4
Seq#:13; Xaa Pos.5
Seq#:14; Xaa Pos.6
Seq#:15; Xaa Pos.7
Seq#:17; Xaa Pos.1,4
Seq#:18; Xaa Pos.1,5
Seq#:19; Xaa Pos.5
Seq#:21; Xaa Pos.67,95
Seq#:22; Xaa Pos.35
Seq#:23; Xaa Pos.16
Seq#:24; Xaa Pos.16

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/792,176

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Input Set : N:\Crif3\RULE60\10792176.raw

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L:30 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:31 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:36 M:238 W: Alpha Fields not Ordered, Reordered [(C) CLASSIFICATION:] of (1)(vi)
L:37 M:220 C: Keyword misspelled or invalid format, [(vii) PRIOR APPLICATION DATA:]
L:41 M:220 C: Keyword misspelled or invalid format, [(vii) PRIOR APPLICATION DATA:]
L:45 M:220 C: Keyword misspelled or invalid format, [(viii) ATTORNEY/AGENT INFORMATION:]
L:50 M:220 C: Keyword misspelled or invalid format, [(ix) TELECOMMUNICATION INFORMATION:]
L:75 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:155 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:247 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:364 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:527 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:64
M:341 Repeated in SeqNo=21
L:555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:32
L:582 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:606 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0